

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic signal and street lighting at MD 198 Relocated (Laurel Road) and Airfield Road Relocated, in Anne Arundel County. MD 198 Relocated is assumed to run in a East-West direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA 3-phase, semi-actuated mode.

III. CONTROLLER REQUIREMENT

Install a semi-traffic-actuated, eight-phase controller with one (1) four channel, time-delay-output loop detector amplifier, and associated harnesses housed in a NEMA size "6" base mounted cabinet.

MAINTENANCE OF TRAFFIC

THE FOLLOWING WORK ZONE TRAFFIC CONTROL STANDARDS SHALL BE USED FOR THE PROJECT:

STANDARD NO. MD-104.02-01 (FLAGGING OPERATION)

STANDARD NO. MD-104.03-01 (INTERSECTION FLAGGING)

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

MR. GREG WALKER
DISTRICT ENGINEER
(410) 841-1001

MR. MARK COBLENTZ
ADE CONSTRUCTION
(410) 545-0379

MR. RICHARD DAFF
DIVISION CHIEF, TOD
(410) 787-7630

MR. LARRY ELLIOTT
ADE TRAFFIC
(410) 841-1003

MR. BARRY KING
CHIEF, TEDD
(410) 787-4011

MR. EDWARD RODENHIZER
CHIEF OF SIGNAL OPERATIONS
(410) 787-7652

EQUIPMENT LIST A

A. EQUIPMENT TO BE SUPPLIED BY THE SHA AND INSTALLED BY THE CONTRACTOR

| QUANTITY | DESCRIPTION |
|----------|---|
| 1 EACH | EIGHT-PHASE, SEMI-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET WITH METER AND DISCONNECT SWITCH. |
| 117 SF | SHEET ALUMINUM SIGNS TO CONSIST OF: <ul style="list-style-type: none">- 3 EACH D3-2 SIGN - MAST ARM MOUNT- 1 EACH R3-5L SIGN - MAST ARM MOUNT- 1 EACH M3-2, M1-5, M6-1 SIGNS - GROUND MOUNT- 1 EACH ASSOCIATED SHIELD ASSEMBLY - POLE MOUNT- 2 EACH W3-3 SIGN W/ "NEW" PANEL - GROUND MOUNT |
| 1 EACH | FOUR-CHANNEL, TIME DELAY OUTPUT, LOOP DETECTOR AMPLIFIER. |

EQUIPMENT LIST B

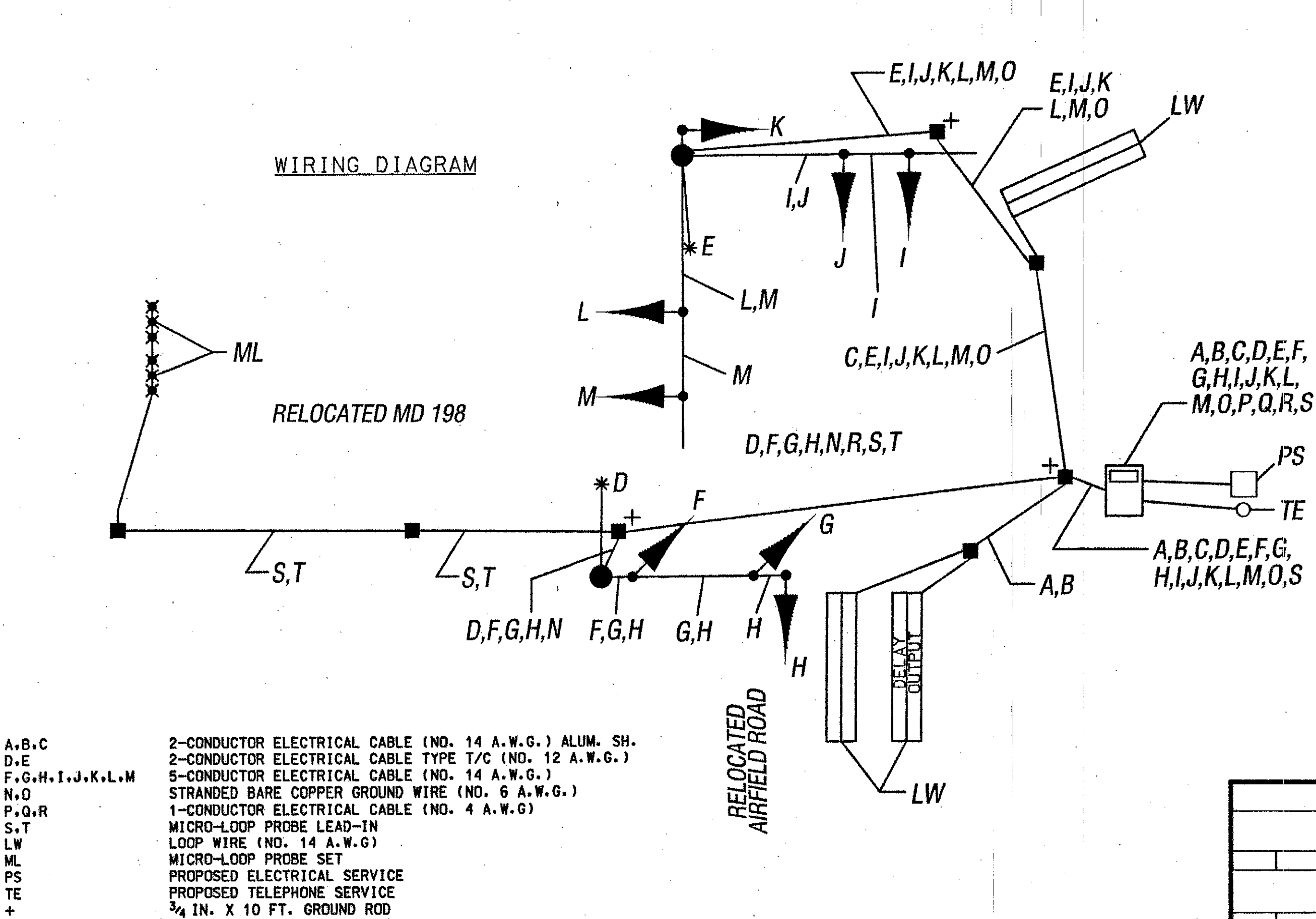
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR

| QUANTITY | DESCRIPTION |
|----------|--|
| 21 EACH | 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION |
| 3 EACH | 12 IN. OPTICALLY PROGRAMMED SIGNAL HEAD SECTION |
| LS | MAINTENANCE OF TRAFFIC |
| 2 CY | TEST PIT EXCAVATION |
| 2 EACH | FURNISH AND INSTALL MICRO LOOP PROBE SET WITH 500 FT. LEAD-IN |
| 50 LF | FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 4 IN. |
| 11 CY | FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION |
| 100 LF | FURNISH AND INSTALL 24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE |
| 3 EACH | FURNISH AND INSTALL 3/4 IN. X 10 FT. GROUND ROD |
| 1530 LF | FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG) |
| 1 EACH | FURNISH AND ISNTALL MAST ARM POLE AND TWIN 60 FT./50 FT. MAST ARMS |
| 1 EACH | FURNISH AND INSTALL MAST ARM POLE AND 38 FT. MAST ARM |
| 1 EACH | FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT |

PHASING SEQUENCE CHART

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|---|
| PHASE #1 | ←G← | R | R | R | R | R | G | G | ↙ |
| PHASE #1 CHANGE | ←Y← | R | R | R | R | R | Y | Y | ↘ |
| PHASE #2 | ←R← | G | G | R | R | R | R | R | → |
| PHASE #2 CHANGE | ←R← | Y | Y | R | R | R | R | R | ↗ |
| PHASE #4 | ←R← | R | R | G | G | G | R | R | ↖ |
| PHASE #4 CHANGE | ←R← | R | R | Y | Y | Y | R | R | ↘ |
| FLASHING OPERATION | FLR | FLY | FLY | FLR | FLR | FLR | FLR | FLR | ↔ |

WIRING DIAGRAM



A,B,C
D,E
F,G,H,I,J,K,L,M
N,O
P,Q,R
S,T
LW
ML
PS
TE
+

2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUM. SH.
2-CONDUCTOR ELECTRICAL CABLE TYPE T/C (NO. 12 A.W.G.)
5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
MICRO-LOOP PROBE LEAD-IN
LOOP WIRE (NO. 14 A.W.G.)
MICRO-LOOP PROBE SET
PROPOSED ELECTRICAL SERVICE
PROPOSED TELEPHONE SERVICE
3/4 IN. X 10 FT. GROUND ROD

EQUIPMENT LIST B CONTINUED

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR

| QUANTITY | DESCRIPTION |
|----------|---|
| 320 LF | FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT (TRENCHED) |
| 290 LF | FURNISH AND INSTALL 3 IN. SCHEDULE 40 RIGID PVC CONDUIT (TRENCHED) |
| 220 LF | FURNISH AND INSTALL 4 IN. SCHEDULE 40 RIGID PVC CONDUIT (TRENCHED) |
| 30 LF | FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR WIRE SLEEVE |
| 7 EACH | FURNISH AND INSTALL ELECTRICAL HANDHOLE |
| 450 LF | SAWCUT FOR SIGNAL (LOOP DETECTOR) |
| 30 LF | FURNISH AND INSTALL ELECTRICAL CABLE-1 CONDUCTOR (NO. 4 AWG) |
| 90 LF | FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR (NO. 14 AWG) ALUM. SHIELDED |
| 390 LF | FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR TYPE T/C (NO. 12 AWG) |
| 1370 LF | FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR (NO.14 AWG) |
| 280 LF | FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG) |
| 2 EACH | FURNISH AND INSTALL 20 FT. LIGHTING ARM FOR TRAFFIC SIGNAL STRUCTURE |
| 2 EACH | FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCCELL |
| 7 SF | REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS |

TS-2



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
Traffic Signal Plan
MD 198 RELOCATED AT AIRFIELD ROAD RELOCATED

DRAWN BY: CJP
CHECKED BY: CJP
SCALE: 1" = 20'
DATE: OCTOBER 23, 2001

F.A.P. NO. AC/HP - 1605(001)N
S.H.A. NO. AA7395870
COUNTY: ANNE ARUNDEL CO.
LOG MILE:

TS NO. 4134

SHEET NO. 3 OF 3



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